

FLASH MEMORY CELL AND METHOD OF MANUFACTURING
THE SAME, AND PROGRAMMING/ERASING/READING METHOD
IN THE FLASH MEMORY CELL

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ABSTRACT OF THE DISCLOSURE

The present invention relates to a flash memory cell and method of manufacturing the same, and programming/erasing/reading method in the flash memory cell. According to the present invention, a source region and a drain region are first formed and a tunnel oxide film is then formed. Therefore, it is possible to prevent damage of the tunnel oxide film due to an ion implantation process. Further, independent two channel regions are formed below the floating gate. Thus, it is possible to store data of two or more bits at a single cell. In addition, the tunnel oxide film, the floating gate and the dielectric film having an ONO structure are formed at a given regions. It is thus possible to reduce the steps of a process and improve an electrical characteristic and integration level of a device.